U1

Operation Guide

v1.0

U1 Waterproof Wireless Controller

FEDERAL COMMUNICATIONS COMMISSION NOTICE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC ID: MMURTI0400

CAN: 3166-RTI0400

BATTERY DISPOSAL

This product is shipped with non-rechargeable alkaline batteries. These batteries are generally considered not to be environmentally hazardous. In most cases they can be disposed of in normal household trash, but you should always verify and follow your local regulations.

Do not burn or incinerate used batteries, as it may cause internal materials to explode.

It is important not to dispose of large amounts of alkaline batteries in a group. Used batteries are often not completely "dead." Grouping used batteries together can bring these "live" batteries into contact with one another, creating safety risks.

SAFETY SUGGESTIONS

Read Instructions. Read all safety and operating instructions before operating the unit.

Heat. Keep the unit away from heat sources such as radiators, heat registers, stoves, etc., including amplifiers that produce heat.

Batteries. When replacing batteries, use only new ones. Do not mix new and used batteries together. Rechargeable batteries are not recommended for this product.

Cleaning. The unit should be cleaned only as recommended in the operating guide.

Servicing. Do not attempt any service beyond that described in the operating guide. Refer all other service needs to qualified service personnel.

Damage Requiring Service. The unit should be serviced by qualified service personnel when the unit does not appear to operate normally or exhibits a marked change in performance.

LIMITED WARRANTY

Remote Technologies Incorporated warrants its products for a period of one (1) year from the date of purchase from Remote Technologies Incorporated or an authorized Remote Technologies Incorporated distributor.

This warranty may be enforced by the original purchaser and subsequent owners during the warranty period, so long as the original dated sales receipt or other proof of warranty coverage is presented when warranty service is required.

Except as specified below, this warranty covers all defects in material and workmanship in this product. The following are not covered by the warranty:

Damage resulting from:

1. Accident, misuse, abuse, or neglect.
2. Failure to follow instructions contained in this Guide.
3. Repair or attempted repair by anyone other than Remote Technologies Incorporated.
4. Causes other than product defects, including lack of skill, competence or experience of user.
5. Shipment of this product (claims must be made to carrier).
6. Being altered or which the serial number has been defaced, modified or removed.

Remote Technologies Incorporated is not liable for any damages caused by its products or for its failure of its products to perform, including any lost profits, lost savings, incidental damages, or consequential damages.

Remote Technologies Incorporated is not liable for damages based upon inconvenience, loss of use of the product, loss of time, interrupted operation, commercial loss, any claim made by a third party or made by you for a third party.

Remote Technologies Incorporated's liability for any defective product is limited to repair or replacement of the product, at our option.

If your *U1* needs service, please contact Remote Technologies Incorporated by telephone, fax or e-mail for return information. ***Please do not return products to RTI without return authorization.***

DISCLAIMER

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Chapter 1. Welcome

Thank you for purchasing the *U1* waterproof wireless controller. The *U1* Remote Control provides a rugged interface option for communicating with RTI remote control processors.

The *U1* was designed for reliable wireless control of audio / video systems from environments which are too harsh for normal remote controls. It is completely sealed, making it both waterproof and floating. Whether indoors or out, the *U1* is a perfect companion for hot tubs, pools, bathrooms, and decks.

Programming is easy and convenient thanks to the Windows® based *TheaterTouch Designer*™ software. Because RTI's remote control products are sold only through professional installers / programmers, and never directly to consumers, it is our philosophy to not incorporate programming capability directly into our products. Instead, we are committed to providing our dealers with the hardware and software tools that allow them to create re-usable programming databases and templates in the most efficient and reliable way possible.

The *U1* is capable of radio frequency output only. The RM-433 receivers (purchased separately) allow transmission through walls and cabinets. The RF receivers connect to an RTI control system for the ultimate in control reliability and flexibility. RTI control systems provide many advanced features such as IR routing, local macro execution, power sensing, and RS-232 control.

WATERPROOF NOTE

The *U1* is designed to withstand temporary exposure to water only. Prolonged exposure of more than 30 minutes may result in the *U1* malfunctioning. Although it is safe to use in showers, hot tubs, and pools, DO NOT ALLOW THE *U1* TO REMAINING FLOATING IN WATER FOR AN EXTENDED PERIOD OF TIME. A convenient mounting holster is provided for storage when the *U1* is not in use.

UNPACKING AND INSPECTION

After unpacking your new *U1* universal system controller, save all of the packing materials in case you ever have to ship the unit.

Thoroughly inspect the *U1* and packing materials for signs of damage. Report any damage to the carrier immediately. Report any equipment malfunctions to Remote Technologies Incorporated or an authorized Remote Technologies Incorporated distributor.

PRODUCT CONTENTS

Contents within the box include the following items:

- One (1) *U1* universal system controller.
- One (1) mounting holster.
- Ten (10) machine screws with o-rings.
- Two (2) wood screws.
- Four (4) AAA alkaline batteries.
- One (1) Operation guide.

SOFTWARE REQUIREMENTS

The recommended minimum system requirements needed to run the *TheaterTouch Designer* software are as follows:

- Windows 98SE®, Windows ME®, Windows 2000®, Windows XP® or later version.
- A free USB port.
- At least 64 Megabytes of RAM.
- At least 100 Megabytes of free disk storage.
- A mouse is required.
- Optional printer for printing reports.

Chapter 2. Introduction

FEATURES

The *U1* provides superior quality and reliability as well as these specific features:

- Durable design is waterproof and it floats.
- Comfortable ergonomic design permits effortless, one-handed operation.
- The perfect selection of buttons for basic audio/video control.
- Four source and eight general purpose buttons are fully assignable/programmable.
- Easy-to-use Windows® based software for programming and customization.
- Transmits commands using RF for operation through walls, cabinets, etc.
- Completely customizable, programmable and upgradeable.
- Tactile feedback on all buttons.
- Includes mounting holster for attaching to walls or other surfaces.
- Optional 'Voltage' and 'Video' sensing modules to monitor power status of equipment.
- Optional interface for RS-232-controlled equipment.
- Non-volatile Flash memory stores your system configuration even when power is not present.

- Field upgradeable firmware (using the TheaterTouch™ Designer Software).
- USB Programming
- One-year parts and labor warranty
- Available only to system integration professionals.

IMPORTANT NOTES

Please read these important notes about the *U1:*

- The *U1* is shipped from the factory without the eight enclosure screws installed. Make sure these screws are properly installed and tightened before exposing the *U1* to water.
- Use only high capacity primary (non-rechargeable) batteries. Alkaline batteries, such as those included with the U1, should provide over a year of operation before requiring replacement.

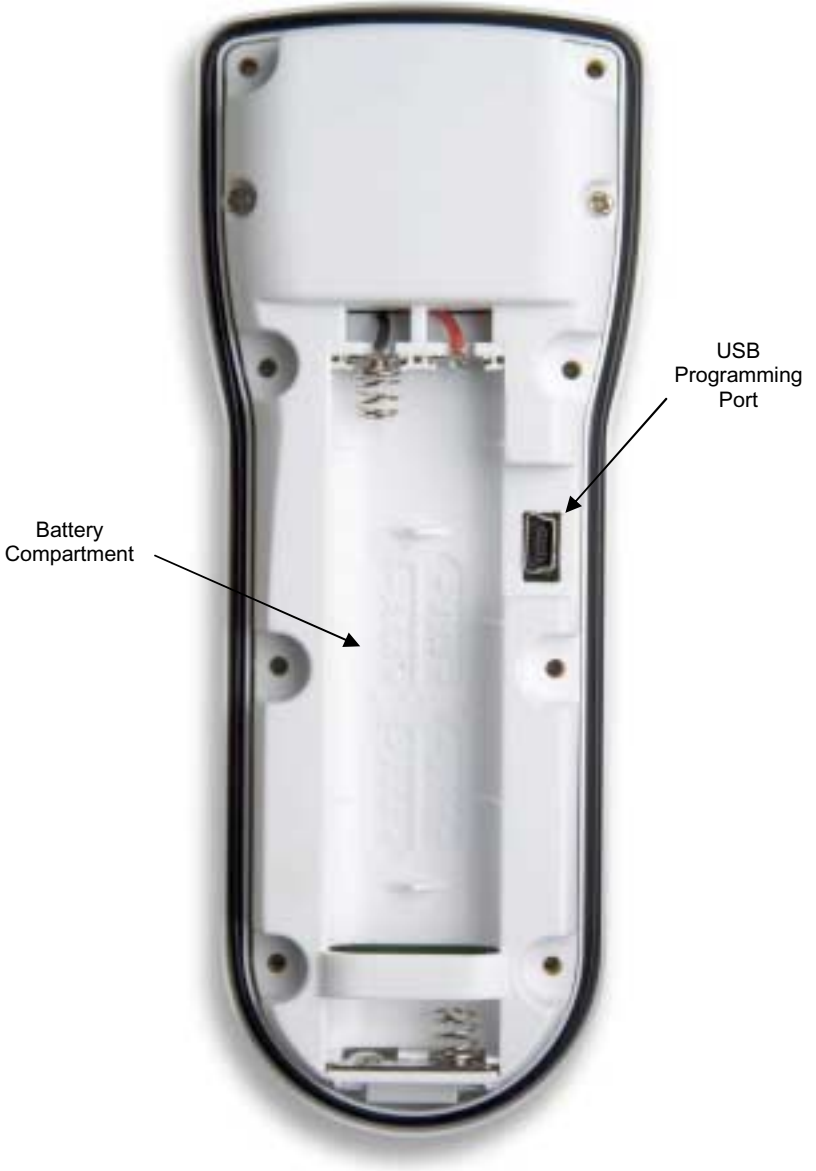
CLEANING

Occasional cleaning may be required, depending on use. To clean your *U1,* lightly dampen a soft cloth with a mild detergent, and wipe the outer surfaces.

REMOTE REFERENCE

Front

Back



Chapter 3. Operation

GETTING STARTED

Start by inserting four AAA batteries (included) into the battery compartment. Make sure they are oriented properly. A polarity diagram is molded into the bottom of the battery compartment.

If you are replacing old batteries, you will need to first remove the eight screws that hold the top and bottom together.

PROGRAMMING

The *U1* is programmed using RTI's *TheaterTouch Designe*r 3.0 or higher software. RTI dealers can download the software free of charge from:

www.rticorp.com / dealers

A PC running Windows® 98SE or higher with a USB port is required. The required USB cable is included with the RTI *IR-PRO* dealer kit.

> **Note:** The *U1* will not operate normally while connected to a PC's USB port. Make sure you disconnect it from the PC to transmit commands. In addition, the *U1* will not be able to sync with a PC's USB port while it is transmitting a command or running a macro.

ASSEMBLY

In order to simplify the initial programming process, the U1 is shipped without the eight enclosure screws installed. When installing these screws, make sure the pressure is evenly distributed around the entire outer gasket. You should gradually tighten each screw, rotating among them around the unit (similar to tightening the bolts on a spare tire). Each screw should eventually be tightened firmly, but not over-tightened.

OPERATING

The operation of the *U1* is highly dependant on the specific programming that you create for it. Although the small number of buttons and lack of a display gives the *U1* a very basic appearance, it is actually capable of many of the same advanced macro features found in all RTI system controllers. For instance, you can assign multiple different functions to a button, depending upon whether you press momentarily, press and hold, or double-click the button.

Chapter 4. Troubleshooting

If you are having problems with your *U1*, please read these troubleshooting tips before contacting technical support.

If you continue to have problems, see Chapter 5 for more information on contacting RTI technical support.

USB COMMUNICATION PROBLEMS

Verify that your PC is using Windows 2000® or higher. The *TheaterTouch Designer* software requires a USB device driver that may not be installed on earlier versions of Windows.

Make sure you are using the programming cable that was supplied by RTI and that both ends are connected securely.

Make sure the PC detects the presence of the T2+. If it doesn't, unplug the USB cable, wait for about ten seconds, and plug it in again.

If the download fails after some data has been transferred, try re-sending the program.

Chapter 5. Service and Support

UPDATES AND NEW PRODUCTS

For news about the latest updates, new product information and accessories, please visit our web site at:

www.rticorp.com

CONTACTING REMOTE TECHNOLOGIES INCORPORATED

For general info, you can contact RTI at:

Remote Technologies Incorporated
Tel. (952) 253-3100
Fax (952) 253-3131
info@rticorp.com
www.rticorp.com

RTI TECHNICAL SUPPORT

At RTI, customer service and satisfaction is an utmost priority. If you are encountering any problems or have a question about your RTI product, please contact RTI Technical Support for assistance.

RTI provides technical support by telephone, fax or e-mail. For the highest quality service, please have the following information ready, or provide it in your fax or e-mail.

- Your Name
- Company Name
- Telephone Number
- E-mail Address
- Product model and serial number (if applicable)

If you are having a problem with hardware, please note the equipment in your system, a description of the problem, and any troubleshooting you have already tried.

If you are having a problem with software, please note what version you have installed, the operating system on your PC, a description of the problem, and any troubleshooting you have already tried.

If you are calling about a software or programming question or problem, please be at you computer when you place your call. This will considerably speed up the troubleshooting process.

For **Technical Support** or assistance with your RTI product, contact RTI at:

(952) 253-3137

support@rticorp.com

www.rticorp.com/support

For questions regarding **Service or Repair** of your RTI product, contact RTI at:

(952) 253-3136

service@rticorp.com

www.rticorp.com/service

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Specifications

Power	Four (4) 1.5V AAA alkaline batteries
Radio Frequency Control Range	Up to 100 Feet (30.5m) (with optional receivers)
Radio Frequency Carrier	433MHz
Operating Temperature	-10°F to +122°F (-23°C to +50°C)
Operating Humidity	5% to 100%
Battery Life	Over one (1) year (typical use)
Total System Memory	16KBytes Flash (non-volatile)
Device Capability	Four device pages
Macro Capability	Macros allowed on every button
Communications	USB programming port
Dimensions	Length: 5.9 in. (150mm) Width: 2.3 in. (59mm) Height: 1.2 in. (30mm)
Enclosure	High-impact molded ABS plastic.
Weight	5.5 oz. (156g) with batteries
Warranty	One Year Parts & Labor

All specifications are subject to change without notice.

It's Under Control ®

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